

The background of the slide is a close-up, slightly blurred image of the United States flag, showing the stars and stripes. The text is overlaid on this background.

# **USAF Dental Investigation Service SUGGESTED LABORATORY EQUIPMENT and MATERIALS**

**All prices are subject to change. Current as of 20 April 04**

# **Presentation Purpose**

- **Starting point when purchasing equipment and materials for the dental laboratory**
- **Products listed are only suggestions for purchase**
- **Products listed have been evaluated by DIS or have been previously used by the federal dental services**

# **Links are provided**

- **Click on the pictures or the yellow links throughout the presentation for additional information on the products.**
- **The information provided is not an endorsement of the products by DIS or the US Federal Government.**
- **All prices listed are government cost unless otherwise stated.**
- **To review the DIS rating system please click [here](#)**

# Index

- Removable Equipment and Products
- Common Equipment and Products





# Removable Equipment and Products

- Acrylics
- Acrylic Teeth
- Flask Press
- Boilout/Curing Unit
- S
- Shell Blaster



# Denture Base Acrylic

## Characterized Lucitone

- Easy to use
- Good handling characteristics
- Good strength
- Various shades
- Cost per denture
  - \$6.21 (21g pkgs)
  - \$4.39 per denture (50-unit bulk pkg)

## Lucitone 199

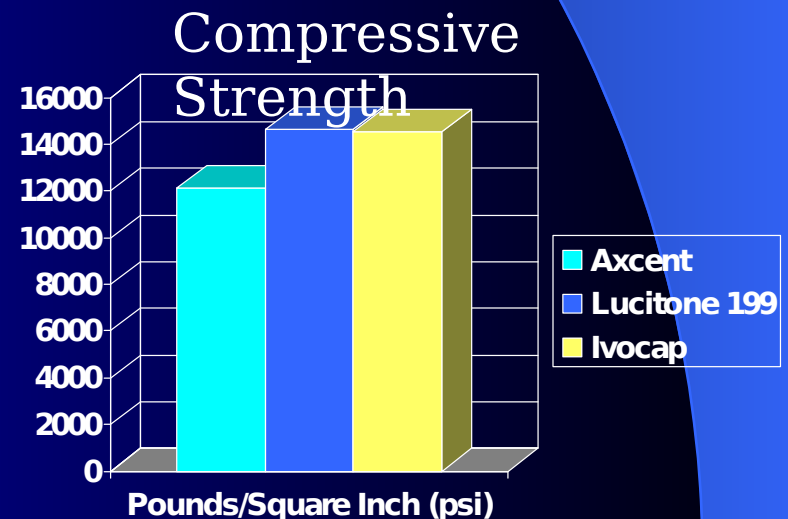
- High impact strength
- Can use Success Injection System
- Cost per denture - \$2.37 (30-unit pkg)



# Denture Base Acrylic

## Axcent 15-Minute Acrylic

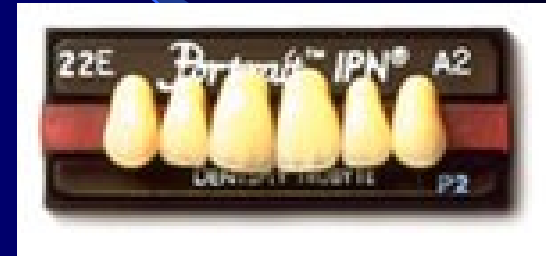
- Fast 15-min curing time
- Good tooth bonding strength
- Various shades
- Cost per denture - \$4.30
- Rated **Acceptable**



# Acrylic Teeth

## Dentsply Trubyte - IPN\_

- Available in Vita® and Bioform shades
- Available in 40°, 33°, 22°, 20°, 10°, 0° posterior teeth sets of 8
- Anteriors 1x6 (\$20.51)
- Posteriors 1x8 (\$10.19)

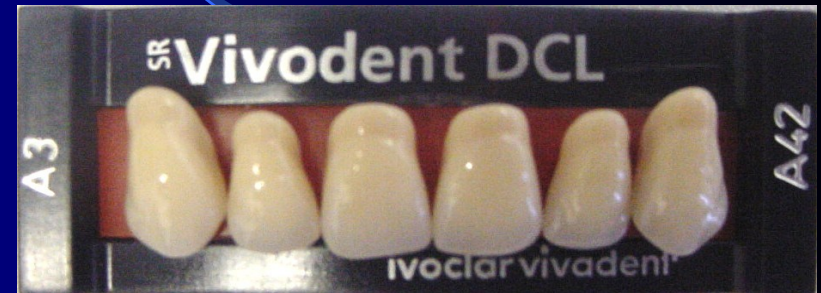




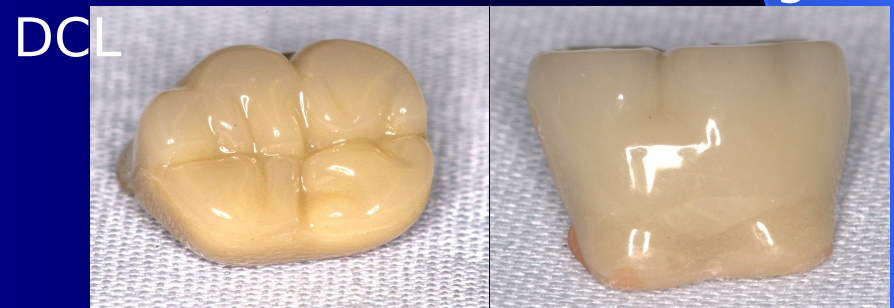
# Acrylic Teeth

## Ivoclar Vivadent - BlueLine

- Available in all 16 A-D and bleach shades
- Incorporates full spectrum of occlusal schemes – lingualized, monoplane, fully anatomic, semi-anatomic
- Anteriors 1x6 (\$16.96)
- Posteriors 1x8 (\$9.80)



Vivodent DCL    Ortholingual



Orthoplane DCL

# Flask Press

## Nevin Hydraulic Press

- Allows for slow closure of flasks
- Can hold several flasks at once
- Hydraulic pump with handle, no air pressure required
- \$690



# Boilout/Curing Units

## Electric Units

- Programmable, easy to use
- Harder to clean with heating element in the water bath
- Heats slower than gas
- For smaller removable workloads

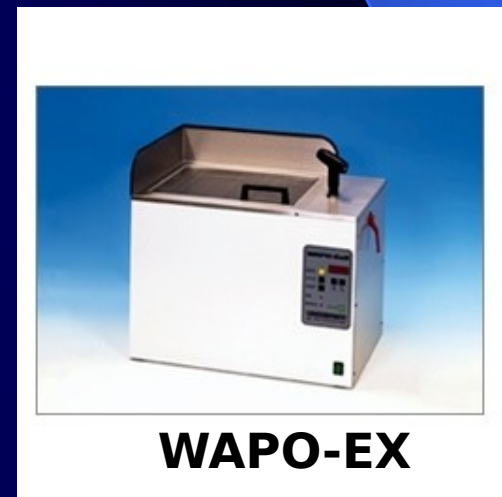
### Nevin 5400

- Programmable for 2 stage curing
- Programmable for delayed start and length of time for each curing cycle (\$2,811)

**Wasserman- WAPO-EX -**  
(\$4,028)



**Nevin 5400**



**WAPO-EX**

# Boilout/Curing Units (cont.)

## Handler Gas-Heated Boilout Unit

- Easy to use & clean
- Heats up quickly
- Reliable
- For heavier removable workloads
- \$3,787



Handler 26105  
Boilout/Washout/Curing Unit

# Curing Units\_

## **Nevin 4900 - (\$1,317)**

- Programmable for 2 curing temperature plateaus
- Programmable for delayed start and length of time for each curing style



## **Wassermann - WAPO-MAT**

- Programmable
- Easy to use and clean (\$1,698)



**WAPO-  
MAT**

# Shellblaster

## **Vaniman - Sandshell XL**

- For labs with medium to heavy removable workload
- Space-saving walnut shellblaster system
- Fully sealed, operates with or without dust collector
- \$356





# Common Equipment and Products

- Model Trimmer
- Vacuum Mixer
- Electric Handpieces
- Bench Lathes
- Steam Cleaners
- Work Benches
- Lab Chairs
- Lab Software



# Model Trimmer

## Renfert MTplus

- Wet/Dry trimmer
- 2-hp engine
- Tool-free adjustments
- \$966 – MTplus with  
Marathon

★ wheel  
Rated **Recommended** by  
DIS as a wet trimmer  
and **Acceptable** as a dry  
trimmer



# Vacuum Mixer

## Renfert Twister Pro

- 5 program settings, for different materials
  - Adjustable mixing time
  - Speed adjustable from 150 to 600 RPM
  - Prevacuum & post vacuum
  - HP automatically adjusts to heavy or light materials
  - Automatically reverses rotation
  - \$1,175
- Rated **Recommended** by DIS



# Vacuum Mixer

## Whip Mix Pro Blend Mixer

- Provides consistent, automatic, and hands-free mixing
- Hands-free mixing frees up user
- Controls are easy to operate and intuitive
- Has two mounting configurations, wall or benchtop
- \$1,284.60
- Rated Acceptable by DIS



# Electric Handpieces

## Brushless Handpiece Moto

- Quieter, run smoother
- Sealed, do not require vents for cooling, and are
- Virtually maintenance free
- Higher torque ratings enable more pressure during use without affecting the motor's speed
- See Synopsis of Laboratory Handpieces on the DIS website for more information

**Virtuoso - Jelenko**



**K4 Handpiece and Control Unit**



**NSK Z-500**

# Electric Handpieces (cont.)

## Osada EXL-M40

- 1,000 to 40,000 rpm
- Reported torque of 4.8 Ncm, and maximum torque of 8 Ncm at 30,000 rpm
- Auto-cruise or variable-speed foot control
- Easy lever-chuck release
- Brushless motor
- Rated **Acceptable** by DIS





# Bench Lathes

## Handler Red Wing

- Reliable! Heavy-duty bench top lathe
- Two-speed
- \$409



## Foredom BL-1A

- A small, lightweight bench top lathe with suction cup feet (secure to bench top for optimal use)
- Best indicated for tasks requiring few bur changes
- Variable speed (\$219)
- Rated **Acceptable** by DIS



# Steam Cleaners

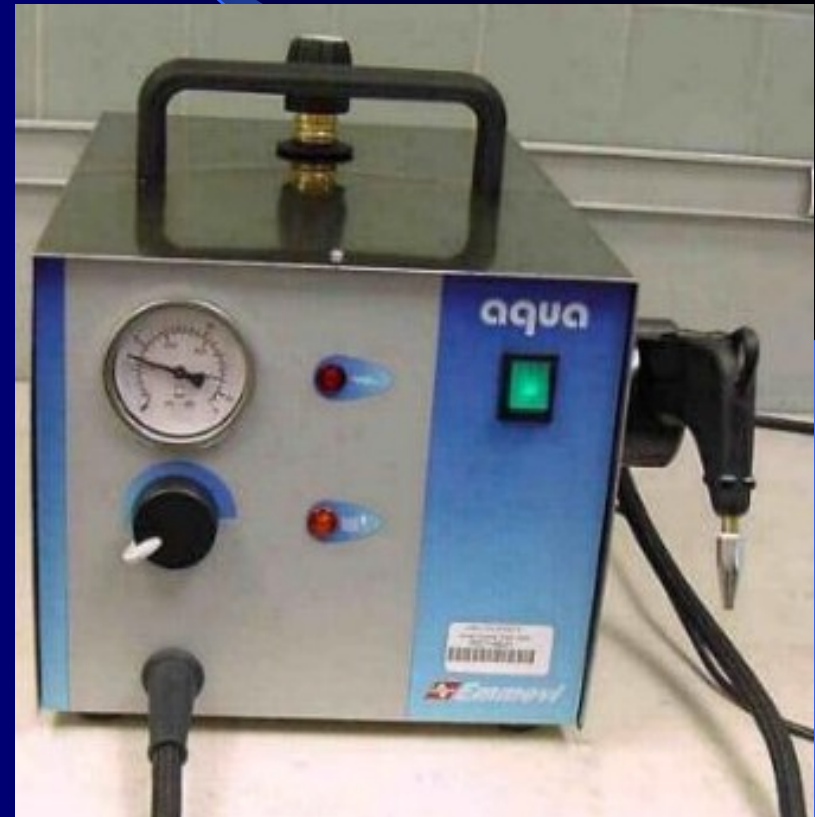
## Emmevi Aqua Steam Cleaner

- Stainless steel
- Well-insulated
- Adjustable pressure
- No water level gauge



\$699

**Rated Recommended**  
by DIS for use in  
small- to medium-size  
dental laboratories



# Work Stations

## Kavo MASTERspace Classic

- Electrical outlets on bench top
- Semi-automatic suction unit with 5-speeds and auto start with handpiece
- Techdent top – 48" x 24"
- Retractable air hose
- Good lighting
- Ergonomic
- \$4,438
- Rated **Acceptable** by DIS



# Work Stations (cont.)

## Nevin Ergotech 9748

- Self-contained & ergonomic
- Variable-speed suction unit, auto start with handpiece
- **Corian top**
  - 48" x 24" or 42" x 24"
- Solidly built
- Electrical outlets below bench top
- Good lighting
- Built-in air hose
- \$3,759
- Rated **Acceptable** by DIS



# Chairs

## Kavo SENsit Laboratory Chair

- Adjustable and maneuverable
- Synchronized backrest/seat tilt
- Lockable adjustment mechanisms
- Optional armrest
- \$556 (without armrests)  
\$703 (with armrests)
- Rated **Acceptable** by DIS



# Chairs (cont.)

## **Nevin Ergonomic Laboratory Chair (#730)**

- Urethane upholstery over a soft foam cushion
- 5-legged nylon-composite base
- Formed-steel seat pan, durable structural integrity
- Designed to stand up to rugged and harsh environments
- \$266





# Chairs (cont.)

## **BioFit BTN/1Q-CAB**

- 5 legged base for stability
- Adjustments for: backrest height and tilt, seat height for comfort and control
- Adjustable foot ring (not shown)
- Large back (not shown)
- Wheels (not shown)
- \$350 w/o arms
- \$414 with arms



# Software Programs

## Bitton Lab Database Plus

- Designed specifically for government dental labs by a former Air Force lab tech
- DWLV tracking capabilities
- ADL case manager built in
- Quality control feature
- Free technical support
- \$299



# Fixed Equipment and Products

- Microblasters
- Porcelain Ovens
- Burnout Ovens
- Microscopes
- Die Pinning System
- Casting Machines
- Porcelain



# Microblasters

## Many options available:

- Choose from number of tanks
- Air pressure adjustment location
- See synopsis @ DIS website

Renfert Basic  
Master



Vaniman Sandstorm Expert

# Porcelain Ovens

## Ivoclar Vivadent Programat P100

- Electronic vacuum control system helps prevent firing errors if vacuum is set incorrectly
- \$3,876 w/pump



## Jelrus VIP Vision 300

- User friendly
- Keypad let's you "Name That Program" from A-Z
- \$2,399



# Porcelain Ovens (cont.)

## VITA VACUMAT 4000

- Two thermocouples within the chamber provide better temperature control
- Automatic temperature calibration after 100 hours of usage
- Internal memory for up to 500 programs
- Portable, detachable keypad
- \$5,836.50





# Porcelain Ovens (cont.)

## Whip Mix Pro Series

- Fast-cool feature
- Pressing furnace has advanced cycles for Inceram, Procera, pressing and porcelain firing
- Pro Press 100 - \$3,351
- Pro 100 - \$2,500



# Burnout Ovens

## Whip Mix Apollo II

- Unique feature is its bottom loading lift platform that raises and lowers investment rings
- Has an optional foot-control switch
- Reduced heat blast
- \$1,280

The **Apollo II** is rated  
**Recommended** by DIS



# Microscopes

## Meiji BM

### Meiji BM

- Dependable and inexpensive
- Easily adjustable
- \$549



### Renfert Mobiloscope

- Swivel arm microscope
- Space saving
- \$1,111
- \$1,438 w/fiber optic light



**Renfert Mobiloscope**

# Die Pinning Systems

## Renfert TopSpin

- Tool-free drill bit replacement
- Two working positions via swivel foot on base
- \$599



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## Whaledent Pindex

- Foot-controlled or Hand-controlled
- Both are laser guided
- \$599



# Casting Machines

## KerrLab Centrifico

- Reliable broken-arm casting machine
- Easy to use
- \$479.50



# Induction Casting Machines

## Dentsply Ceramco Super Cascom

- 100 program digital memory
- Vacuum/pressure assisted casting
- \$15,000 retail price



## Bego Fornax T

- Compact design
- Short heating time due to infrared controller
- \$12,473 retail price





# Porcelain

## Ivoclar IPS d.Sign Porcelain

- Produces esthetic restorations
- Mixes easily with minimal slumping
- Comparable price to other porcelain systems used in the USAF (basic system-\$717)
- Rated **Acceptable** by DIS



# Porcelain

## **Vita Omega 900-3D**

- Low-fusing ceramic
- Used for crowns, bridges, laminates
- Reportedly compatible with wide variety of metals
- Wear is reportedly similar to natural teeth
- Standard kit - \$1,696.00



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